

Cancel without prejudice claims 15 and 20.

Please amend claims 1, 2, 4, 7, 11, 12, 14, 18 and 19, and add new claims 21 and 22, as follows:

01  
1. (Amended) Isolated polypeptides having antifreeze activity which are obtained from carrots and which have an apparent molecular weight on SDS-PAGE of 36 kDa and isoforms or derivatives thereof which still possess antifreeze activity.

02  
2. (Twice amended) Isolated polypeptides having antifreeze activity comprising one or more fragments (A-E) of the amino acid sequence as follows:

(A) LEU-PRO-ASN-LEU-PHE-GLY-LYS (SEQ ID NO. 1)

(B) ILE-PRO-GLU-GLU-ILE-SER-ALA-LEU-LYS (SEQ ID NO. 2)

(C) LEU-THR-X-LEU-ASP-LEU-SER-PHE-ASN-LYS (SEQ ID NO. 3)

(D) SER-LEU-ARG-LEU-SER-SER-THR-SER-LEU-SER-GLY-PRO-VAL-PRO-LEU-PHE-PHE-PRO-GLN-LEU-X-LYS (SEQ ID NO. 4)

(E) X-X-GLY-VAL-ILE-PRO-X-GLN-LEU-SER-THR-LEU-PRO-ASN-LEU-LYS (SEQ ID NO. 5), wherein X is any amino acid.

03  
4. (Twice amended) Isolated polypeptides having antifreeze activity having an amino acid sequence as represented in SEQ ID NO. 7 and isoforms and derivatives thereof which still possess antifreeze activity.

04  
7. (Twice amended) A method of obtaining polypeptides according to claim 2 whereby the polypeptide is isolated from cold acclimatised carrots.

05  
11. (Twice amended) An isolated polypeptide which has antifreeze activity that is immunologically related to the polypeptide of claim 2 as determined by its cross reactivity with an antibody capable of specifically binding to said polypeptide.

12. (Twice amended) A food product comprising a polypeptide of claim 2 with the proviso that the food product is not a carrot.

06  
14 (Twice amended) A method of producing a food product comprising an antifreeze polypeptide according to claim 2, comprising the step of  
(a) adding to the food product a composition comprising said antifreeze polypeptide.

07  
18. (Amended) An isolated polypeptide that is immunologically related to the polypeptide of claim 2 as determined by its cross reactivity with an antibody capable of specifically binding said polypeptide.

19. (Amended) A food product comprising a polypeptide according to claim 2 with the proviso that the food product is not a carrot containing the polypeptide at naturally occurring levels.

08  
21. (New) A food product comprising a polypeptide having antifreeze activity comprising one or more fragments (A-E) of the amino acid sequence as follows:

(A) LEU-PRO-ASN-LEU-PHE-GLY-LYS (SEQ ID NO. 1)

(B) ILE-PRO-GLU-GLU-ILE-SER-ALA-LEU-LYS (SEQ ID NO. 2)

(C) LEU-THR-X-LEU-ASP-LEU-SER-PHE-ASN-LYS (SEQ ID NO. 3)

(D) SER-LEU-ARG-LEU-SER-SER-THR-SER-LEU-SER-GLY-PRO-VAL-PRO-LEU-PHE-PHE-  
PRO-GLN-LEU-X-LYS (SEQ ID NO. 4)

(E) X-X-GLY-VAL-ILE-PRO-X-GLN-LEU-SER-THR-LEU-PRO-ASN-LEU-LYS (SEQ ID NO. 5),  
wherein the food product is a frozen confectionery product or a frozen vegetable with  
the proviso that the food product is not a carrot, wherein X is any amino acid.

22. (New) A method of producing a food product other than carrot comprising an  
antifreeze polypeptide, comprising the step of:

in situ production of said antifreeze polypeptide.

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